

Remarks

Applicant and the undersigned reviewed the Office Action carefully before preparing this response. Reconsideration is respectfully requested. Nonetheless, in light of the positions presented herein, this application is believed to be in condition for allowance.

Claims 9, 10 and 14 were rejected under either 35 U.S.C. 102(a) or (b) as anticipated by Gao and Davis, or Azamian, respectively. Applicant appreciates the Examiner's concern, but in each instance respectfully disagrees. None of the cited references anticipate the claimed invention, and each rejection should be withdrawn.

Gao describes anodic electrode configuration constructed from an array of carbon nanotubes coated with a polymeric film including glucose oxidase. Enzymatic activity produces hydrogen peroxide, which is oxidized (producing oxygen and an electron current) according to a well-understood reaction pathway (see, Exhibit A). Oxidation is a surface phenomenon, as confirmed by the necessity of residual iron particles (from the coating synthesis) on the nanotube tips. (See, Gao, at page 1394.)

As an electrode, the Gao component is not provided with a voltage potential thereacross. The requirement of iron particles on the nanotube tips shows Gao to be typical of the surface contact approaches of the prior art. Oxidation of hydrogen peroxide generates electrons, at the nanotube anode configuration, as the basis for any subsequent monitoring. (see, e.g. Gao Figure 3).

Hydrogen peroxide oxidation (and oxygen production) precludes an interstitial approach of Applicant's invention, and electron production is not hydrogen sorption. As such, Gao does not anticipate Applicant's invention. The rejection should be withdrawn, with the subject claims allowed to proceed toward issue.

As with Gao, Davis describes a surface contact approach, with electron production according to the reaction shown. Hydrogen is not produced, and generated electrons are monitored. Likewise, Davis does not anticipate

Applicant's invention. This rejection should be withdrawn, with the subject claims allowed to proceed toward issue.

Azamian is referenced in Davis and directed to preliminary research on the same glucose oxidation system described in Davis. Again, as more fully described above, the anodic electrodes represent a nanotube surface phenomenon, and electron generation is monitored. As with Gao and Davis, Azamian fails to anticipate Applicant's invention. The rejection should be withdrawn, with the subject claims allowed to proceed toward issue.

Several claims were rejected under 35 U. S. C. § 103, as obvious over each of Gao, Davis and Azamian. Applicant notes however that each such claim is merely dependent upon a claim on which each reference is deficient. Section 103 requires that obviousness be determined on the basis of the claimed "subject matter as a whole". Here, for reasons more fully described above, the deficiencies of Gao, Davis and Azamian remain. Applicants do not concede such references teach or suggest the dependent claims. Even so, the aforementioned deficiencies, with respect to the independent claim, show this rejection to be based on less than the entire claimed subject matter. Accordingly, there is no *prima facie* obviousness. Neither Gao, Davis nor Azamian is an appropriate reference on which to base obviousness. Each corresponding rejection should be withdrawn, with the subject claims allowed to proceed toward issue.

Several claims were rejected under 35 U.S. C. § 112, second paragraph, for the stated reasons. Responsive thereto, the term "introducing" is readily understood in the context of the present invention. Nonetheless, Applicant would be agreeable to a suitable clarification upon favorable resolution of the aforementioned issues.

Likewise, it is respectfully suggested that the present methodology can be readily understood by those skilled in the art. Reference is made to the specification, in particular pages 3-6, several examples and the corresponding figures. Oxidase activity and electrolysis of hydrogen peroxide can be used to detect glucose. Monitoring can be responsive to interstitial hydrogen sorption.

One such response can be resistance. Finally, it is respectfully suggested that claims 11 and 12 find appropriate antecedent basis in claim 10.

This application is believed to be in condition for allowance. Consistent therewith, favorable action is respectfully requested. The Examiner is invited to contact the undersigned by telephone should any issue remain. Thank you for your time and consideration.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Rodney D. DeKruif", written in a cursive style.

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